



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1459  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,599	09/22/2005	Juergen Breitenbacher	10191/3583	6564
26646	7590	12/22/2008		
KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			EXAMINER NGUYEN, XUAN LAN T	
			ART UNIT	PAPER NUMBER
			3657	
			MAIL DATE	DELIVERY MODE
			12/22/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/524,599

**Applicant(s)**

BREITENBACHER ET AL

**Examiner**

Lan Nguyen

**Art Unit**

3657

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14 and 16-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14 and 16-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CC)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 14 and 16-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartmann et al. (USP 5388896) in view of Schubert (USP 6030055).

Re: claim 14, Hartmann shows a method for braking two wheels of a vehicle, as in the present invention, comprising: linking a first value of a first brake pressure in a first wheel-brake cylinder allocated to a first wheel 50 of the two wheels with a second value of a second brake pressure in a second wheel-brake cylinder allocated to a second wheel 50 of the two wheels, wherein the linking is given on the basis of hydraulic pressures at respective intake valves including a first intake valve 5a and a second intake valve 5b, as stated in the Abstract wherein the pressures of the two valves are employed in the controlling method. Hartmann lacks the concept of employing a differential pressure in the first intake valve and in the second intake valve in the controlling method. Schubert teaches the concept of employing a differential pressure in an intake valve in a control method instead of using pressure values in order to increase accuracy in a pressure controlling method in column 1, lines 47-end.

Schubert further shows the characteristics curves in figures 6a and 6b, for differential pressure in relationship with current in order to determine the current from the differential pressure and vice versa. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hartmann's method to employ the differential pressure of an intake valve in a controlling method as taught by Schubert instead of using pressure values in order to increase accuracy in a pressure controlling method. As modified, Hartmann's method would be employing characteristic curves as taught by Schubert for the first and the second intake valves in order to increase accuracy in the controlling method in the same manner for both valves. As such, the current of each valve can be determined from the characteristics curves as shown by Schubert. Schubert also shows in column 1, lines 47-54 that the currents are activation currents for outputting signals to generate pressures as shown in figure 3.

Re: claims 16-19, Schubert further teaches the concept of using characteristic curves of differential pressure versus current in controlling the intake valve in figures 6a and 6b. As modified by Schubert, Hartmann's method would be employing characteristic curves as taught by Schubert for the first and the second intake valves in order to increase accuracy in the controlling method.

Re: claim 20, Hartmann further teaches the concept of setting a limit in the difference between the pressures of the intake valves 5a, 5b in the Abstract, lines 4-7.

Re: claim 21, Hartmann teaches the step of the linking indicates a difference between the first pressure and the second pressure. As modified by Schubert,

Hartmann's method would comprise the step of indicating a difference between the first pressure differential and the second pressure differential.

Re: claims 22 and 23, Hartmann further teaches the concept of taking into consideration the vehicle speed and transverse acceleration in the controlling scheme in controlling the two wheels 5a and 5b which belong to the same axle as stated in the Abstract.

Re: claims 28 and 41-46, Schubert teaches all the combinations of the pressures versus the currents in the characteristic curves as shown in figures 6a and 6b.

Re: claim 24, Hartman shows a device for braking two wheels of a vehicle, as in the present invention, comprising: a logic arrangement for linking a first value of a first brake pressure in a first wheel-brake cylinder allocated to a first wheel 50 of the two wheels with a second value of a second brake pressure in a second wheel-brake cylinder allocated to a second wheel 50 of the two wheels, wherein the linking is given on the basis of hydraulic pressures at respective intake valves including a first intake valve 5a and a second intake valve 5b, as stated in the Abstract wherein the pressures of the two valves are employed in the controlling device. Hartmann lacks the concept of employing a differential pressure in the first intake valve and in the second intake valve in the controlling device. Schubert teaches the concept of employing a differential pressure in an intake valve in a controlling device instead of using pressure values in order to increase accuracy in a pressure controlling method in column 1, lines 47-end. Schubert further shows the characteristics curves in figures 6a and 6b, for differential pressure in relationship with current in order to determine the current from the

differential pressure and vice versa. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hartmann's device to employ the differential pressure of an intake valve in a controlling device as taught by Schubert instead of using pressure values in order to increase accuracy in a pressure controlling method. As modified, Hartmann's device would be employing characteristic curves as taught by Schubert for the first and the second intake valves in order to increase accuracy in the controlling method in the same manner for both valves. As such, the current of each valve can be determined from the characteristics curves as shown by Schubert. Schubert also shows in column 1, lines 47-54 that the currents are activation currents for outputting signals to generate pressures as shown in figure 3.

Re: claims 25 and 26, Schubert further shows that the intake valve is a differential-pressure regulating valve and that the valve is control by a characteristic curve of differential pressure versus current. As modified by Schubert, Hartmann's device would comprise first and second the intake valves to be differential-pressure regulating valves and that the valves would be controlled by characteristic curves of differential pressure versus current as taught by Schubert in figures 6a and 6b in order to improve accuracy.

Re: claims 27 and 29-40, Schubert teaches all the combinations of the pressures versus the currents in the characteristic curves as shown in figures 6a and 6b. Hartman shows that the valves are solenoid valves wherein the valves are activated to control a yawing moment in the Abstract and the wheels 50, 50 (with valves 5a, 5b) are in the same axle as shown in figure 1 of Hartman.

***Response to Arguments***

3. Applicant's arguments filed 9/2/08 have been fully considered but they are not persuasive.

- Applicant argues that Hartman and Schubert do not teach the amended portion of using the determined coil current to generate the second pressure differential. The rejection has been slightly modified above to show that Schubert teaches clearly that the currents are activation currents for controlling the pressures as shown in figure 3 of Hartman.
- For this reason, the rejection is still deemed proper and is repeated above.

***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Nguyen whose telephone number is (571) 272-7121. The examiner can normally be reached on Monday through Friday, 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Xuan Lan Nguyen/ 12-18-08  
Primary Examiner  
Art Unit 3657